REMARKS

This is intended as a full and complete response to the Final Office Action dated August 10, 2006, having a shortened statutory period for response set to expire on November 10, 2006. Claims 1 and 3 - 14 have been examined. The Examiner rejected claims 1, 3 - 4, and 7 - 14 under 35 U.S.C. § 103(a) as being obvious over Silberberg, U.S. Publication No. 2003/0194165 in view of Bouevitch, U.S. Publication No. 2003/0035605. The Examiner rejected claims 5 and 6 under 35 U.S.C. § 103(a) as being obvious over Silberberg in view of Bouevitch and Tsai, U.S. Publication No. 2002/0122444.

Claim Rejections Under 35 U.S.C. § 103(a)

The Examiner rejected claims 1, 7, and 11 as being obvious over Silberberg in view of Bouevitch. Applicants respectfully traverse the rejection.

According to MPEP 2143, to establish a *prima facie* case of obviousness the prior art reference (or references when combined) must teach or suggest all the claim limitations. Claim 1 includes the limitation of a liquid crystal tunable filter for receiving and processing a P-polarization beam and a rotated S-polarization beam from a C-polarizer. Silberberg does not disclose this limitation. In contrast, Silberberg discloses a plurality of separate independently tunable filters "340," wherein one tunable filter "342" receives and processes a first polarization beam "313" and another tunable filter "344" receives and processes a second polarization beam "313" (see Silberberg, Figure 20). In fact, Silberberg clearly states that each tunable filter "341-344" is located along a different optical path (see Silberberg, paragraph 0113).

Moreover, claim 1 includes the limitation that the beam waists of the P-polarization beam and the rotated S-polarization beam are located substantially on a center of a liquid crystal cavity in a liquid crystal tunable filter. Silberberg does not disclose this limitation. As previously discussed, Silberberg discloses the use of a separate tunable filter for each polarization beam. Thus, Silberberg cannot disclose that the beam waists of the P-polarization beam and the rotated S-polarization beam are located substantially on a center of a liquid crystal cavity in a liquid crystal tunable filter. As explained in past responses, the specification of the present application

makes clear that locating the beam waists on the center of the liquid crystal cavity reduces the parallelism requirement for a liquid crystal cavity, which is a stated advantage of the present invention (see Application page 7, line 18 – page 8, line 4).

In addition, Bouevitch merely states that an increased channel bandwidth is observed if a beam waist is focused on a liquid crystal cell. There is no teaching in Bouevitch about two different beams being filtered through the same liquid crystal tunable filter or that the beam waistes of the two beams are located substantially on a center of a liquid crystal cavity in the liquid crystal tunable filter. As such, Bouevitch fails to cure the deficiencies of Silberberg.

Claims 7 and 11 include the limitation of scanning to filter the spectral information of the first beam and the second beam by a liquid crystal tunable filter, wherein the first beam and the second beam are separate from one another, and beam waists of the first beam and the second beam are located substantially on a center of a liquid crystal cavity in the liquid crystal tunable filter. Silberberg clearly does not disclose this limitation. As set forth above, Silberberg discloses a separate tunable filter for each polarization beam and therefore Silberberg cannot disclose scanning to filter the spectral information of the first beam and the second beam by a liquid crystal tunable filter, as recited in claims 7 and 11. Moreover, as previously set forth, Silberberg cannot disclose that the beam waists of the first beam and the second beam are located substantially on a center of a liquid crystal cavity in the liquid crystal tunable filter, as recited in claims 7 and 11. Again, Bouevitch fails to cure the deficiencies of Silberberg.

As the foregoing illustrates, the combination of Silberber and Bouevitch fails to teach or suggest all the limitations of claims 1, 7, and 11. Therefore, the combination of Silberber and Bouevitch fails to render claims 1, 7, and 11 obvious. Applicants therefore submit that claims 1, 7, and 11 are in condition for allowance and respectfully request withdrawal of the § 103(a) rejection. Additionally, since claims 3-6 depend from claim 1, claims 8-10 depend from claim 7, and claims 12-14 depend from claim 11, these claims are allowable for at least the same reasons as claims 1, 7, and 11.

The Examiner rejected claims 5 and 6 as being obvious over Silberberg in view of Bouevitch and further in view of Tsai. Applicants respectfully traverse the rejection. Claims 5 and 6 depend from claim 1. As set forth above, the combination of Silberber and Bouevitch fails to render claim 1 obvious. Tsai merely discloses a light detection unit that may include photodiodes, photodiode arrays, bi-cells, and particularly quad-photocells and thus, Tsai fails to

cure the deficiencies of the combination of Silberber and Bouevitch and this failure precludes the combination of Silberber and Bouevitch and Tsai from rendering claims 5 and 6 obvious. For these reasons, Applicants submit that claims 5 and 6 are in condition for allowance and respectfully request withdrawal of the § 103(a) rejection.

Conclusion

Having addressed all issues set out in the office action, Applicants respectfully submit that the case is in condition for allowance. If the Examiner has any questions, please contact the Applicants' undersigned representative at the number provided below.

Respectfully submitted,

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